

18. (New) The active inductor according to Claim 17, further comprising a fourth capacitor provided on said feedback path.

19. (New) The active inductor according to Claim 16, further comprising a fourth capacitor provided on said feedback path.

REMARKS

Favorable reconsideration of this application, in light of the following discussion, is respectfully requested.

Claims 1-19 are pending; Claims 16-19 are added; and no claims have been amended or cancelled herewith. Claims 2-5, 7-10, and 12-15 have been withdrawn from consideration. Applicant respectfully submits that no new matter has been added by this amendment.

In the outstanding Office Action, Claim 1 was rejected under 35 U.S.C. § 103(a) as unpatentable over Hara (U.S. Pat. No. 5,202,655) in view of Millman, Microelectronics textbook; and Claims 1, 6, and 11 were rejected under 35 U.S.C. § 103(a) as unpatentable over Ko et al. ("Low Power, Tunable Active Inductor and Its Applications ...", hereafter Ko) in view of Millman.

Applicant thanks Examiner Bettendorf for the interview granted Applicant's representatives on October 8, 2002. During the interview, Claims 1, 6, and 11 were discussed with regard to the Ko and Hara references. During the interview, Claims 1, 6, and 11 were discussed with regard to the Ko and Hara references. During the interview, Examiner Bettendorf agreed to withdraw the rejection based on Ko.

Because the rejection of Claims 6 and 11 was withdrawn during the interview, Applicant respectfully submits that Claims 6 and 11 are in condition for allowance. Because no claims have been amended herewith, Claims 6 and 11 remain in their original form.

With regard to the rejection of Claim 1 under 35 U.S.C. § 103(a) as unpatentable over Hara in view of Millman, it is respectfully submitted that the Office Action has failed to provide a *prima facie* case of obviousness.

Claim 1 recites, in part, “An active inductor comprising first and second field effect transistors ... said gate and said source of said second field effect transistor serve as two ports of said active inductor.” The claimed configuration enables the miniaturization of the active inductor, as well as decreased power consumption.¹

Hara relates to a microwave active filter circuit using pseudo gyrator. While Hara shows a gyrator, Claim 1 of the present application defines a two-port type active inductor. A gyrator includes a pair of two-port type ports and cannot constitute an active inductor as long as a CR is not connected to one two-type port. Therefore, it is evident that Hara does not disclose or suggest that the gyrator may function as a two-port type active inductor. Specifically, Hara fails to disclose or suggest that “said gate and said source of said second field effect transistor serve as two ports of said active inductor.” By contrast, the configuration recited in Claim 1 of the present application is capable of functioning as an active inductor by itself.

The Office Action relies on Millman for the concept that the source and drain may be interchangeable. However, the cited portion of Millman does not disclose or suggest that “said gate and said source of said second field effect transistor serve as two ports of said active inductor.”

Accordingly, as neither Hara nor the cited portion of Millman, either alone or in combination, discloses or suggests the features recited in pending independent Claim 1, it is respectfully submitted that the Office Action has failed to provide a *prima facie* case of obviousness. Applicant therefore respectfully requests that this rejection be withdrawn.

¹ Specification, page 1, lines 20-25.

Newly added Claims 16-19 recite previously disclosed but unclaimed subject matter. Support for these new claims may be found, for example, in Figure 1. Accordingly, Applicant respectfully submits that no new matter has been added by new Claims 16-19. Claims 16-19 additionally recite features not believed to be disclosed or suggested by the references of record, and are therefore considered to be in condition for allowance.

Consequently, in view of the foregoing discussion, Applicant respectfully submits that the pending application is in condition for immediate allowance. An early and favorable action is therefore respectfully requested.

Respectfully submitted,

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